

CLAIMS

I Claim:

1. A sweetener comprising an agglomerate of an intense sweetener and a carrier such that the sweetener has a bulk density from 0.18 to 0.50 g./cc.

2. A sweetener comprising an agglomerate of an intense sweetener and a carrier such that the sweetener has a bulk density from 0.18 to 0.35 g./cc.

3. A sweetener comprising an agglomerate of an intense sweetener and a carrier such that the sweetener has a bulk density from 0.20 to 0.30 g./cc.

4. The sweetener according to claim 1, wherein the sweetener fills a recognizable package while using a smaller amount of carrier and having the same amount of sweetness as a conventional sweetener having a bulk density of 0.66 g./cc.

5. The sweetener according to claim 4, wherein the sweetener is less hygroscopic than if the intense sweetener and carrier were merely mixed.

6. The sweetener according to claim 4, wherein the sweetener does not cake together.

7. A sweetener comprising:

35 parts of soluble aspartame;

40 parts of maltodextrin having 10 Dextrose Equivalent (DE); and
925 parts of dextrose, where the aspartame, maltodextrin and dextrose were agglomerated.

8. A sweetener comprising:
3.5 percent soluble aspartame;
6 percent of maltodextrin having 10 Dextrose Equivalent (DE); and
90.5 percent of dextrose, where the aspartame, maltodextrin and dextrose were agglomerated.

9. A sweetener comprising:
3.5 percent soluble aspartame;
8 percent maltodextrin having 10 Dextrose Equivalent (DE); and
88.5 percent dextrose, where the aspartame, maltodextrin and dextrose were agglomerated.

10. A sweetener comprising:
3.5 percent soluble aspartame;
10 percent maltodextrin having 10 Dextrose Equivalent (DE); and
86.5 percent dextrose, where the aspartame, maltodextrin and dextrose were agglomerated.

11. The sweetener of claim 7 wherein the bulk density of the sweetener is approximately 0.50 g/cc.

12. The sweetener of claim 7 wherein the residual moisture content of the sweetener is between 5% and 7%.

13. A sweetener comprising:

700 parts soluble aspartame;

1000 parts maltodextrin having 10 Dextrose Equivalent (DE); and

8300 parts dextrose, where the aspartame, maltodextrin and dextrose were agglomerated.

14. The sweetener of claim 13 wherein the bulk density of the sweetener is approximately 0.32 g/cc.

15. The sweetener of claim 13 wherein the agglomeration technique was a continuous type agglomeration technique.

16. The sweetener of claim 13 wherein the agglomeration technique was to introduce the ingredients and spray water to control the particle size to affect uniform free flowing sweetener.

17. The sweetener of claim 13 wherein the agglomeration technique was a conveyor type steam agglomeration technique.

18. The sweetener of claim 13 wherein the sweetener is free flowing.

19. The sweetener of claim 13 wherein the sweetener exhibits low hygroscopic characteristics.

20. The sweetener of claim 13 wherein when 0.5g of the agglomerated sweetener is packed in typical packets, it occupies substantially the same space as 1g of a conventional mixed sweetener having a bulk density of 0.66 g./cc.

21. A sweetener comprising:

720 parts soluble aspartame;

1000 parts maltodextrin having 10 Dextrose Equivalent (DE);

8280 parts dextrose; and

10,000g of water mixed with the aspartame, maltodextrin and dextrose to form a uniform solution, where the mixture is agglomerated.

22. The sweetener of claim 21 wherein the mixture is agglomerated using a spray drier tower agglomerating system.

23. The sweetener of claim 21 wherein the bulk density of the sweetener is approximately 0.35 g/cc.

24. The sweetener of claim 21 wherein 0.5g of the sweetener contains 36mg of soluble aspartame.

25. The sweetener of claim 21 wherein the sweetener contains less than 2 calories.

26. A sweetener comprising:

720 parts soluble aspartame;

1000 parts maltodextrin having 10 Dextrose Equivalent (DE);

8280 parts corn syrup solids; and

10,000g of water mixed with the Aspartame, maltodextrin and corn syrup solids to form a uniform solution, where the mixture is agglomerated.

27. The sweetener of claim 26 wherein the mixture is agglomerated using a spray drier tower agglomerating system.

28. The sweetener of claim 26 wherein the bulk density of the sweetener is approximately 0.35 g/cc.

29. The sweetener of claim 26 wherein 0.5g of the sweetener contains 36mg of soluble aspartame.

30. The sweetener of claim 26 wherein the sweetener contains less than 2 calories.

31. The sweetener of claim 26 wherein the spray drier used is equipped to inject carbon dioxide prior to a drying nozzle.

32. The sweetener of claim 26 wherein the sweetener has a bulk density of 0.28g/cc.

33. The sweetener of claim 26 wherein the sweetener has uniform spherical particles.

34. The sweetener of claim 26 wherein the sweetener contains no bound crystals.

35. The sweetener of claim 1 wherein the high intensity sweetener comprises sucralose, saccharin, a dipeptide sweetener, acesulfame-K, cyclamate, stevioside or a combination of two or more thereof.

36. A method for preparing an sweetener comprising the steps of:
providing an intense sweetener; and
agglomerating the intense sweetener with a carrier such that the sweetener has a bulk density from 0.18 g./cc. to 0.50 g./cc.

37. A method for preparing an sweetener comprising the steps of:
providing an intense sweetener; and
agglomerating the intense sweetener with a carrier such that the sweetener has a bulk density from 0.18 g./cc. to 0.35 g./cc

38. A method for preparing an sweetener comprising the steps of:
providing an intense sweetener; and
agglomerating the intense sweetener with a carrier such that the sweetener has a bulk density from 0.20 g./cc. to 0.30 g./cc.

39. A method for preparing an sweetener comprising the steps of:
providing 35 parts of soluble aspartame;

providing 40 parts of maltodextrin having 10 Dextrose Equivalent (DE);
providing 925 parts of dextrose; and
agglomerating the aspartame, maltodextrin and dextrose.

40. The sweetener of claim 39 wherein the bulk density is approximately 0.50 g/cc.

41. The sweetener of claim 39 wherein the residual moisture content of the sweetener is between 5% and 7%.

42. A method for preparing an sweetener comprising the steps of:
providing 700 parts of soluble aspartame;
providing 1000 parts of maltodextrin having 10 Dextrose Equivalent (DE);
providing 8300 parts of dextrose; and
agglomerating the aspartame, maltodextrin and dextrose.

43. The sweetener of claim 42 wherein the bulk density of the sweetener is approximately 0.32 g/cc.

44. The sweetener of claim 42 wherein the agglomeration technique is a continuous type agglomeration technique.

45. The sweetener of claim 42 wherein the step of agglomerating further comprises the step of introducing the ingredients and spraying water to control the particle size to affect uniform free flowing powder.

46. The sweetener of claim 42 wherein the step of agglomerating uses a conveyor type steam agglomerator.

47. The sweetener of claim 42 wherein the sweetener is free flowing.

48. The sweetener of claim 42 wherein the sweetener exhibits low hygroscopic characteristics.

49. The sweetener of claim 42 wherein when 0.5g of the agglomerated sweetener is packed in typical packets, it occupies substantially the same space as 1g of a conventional sweetener product having a bulk density of 0.66 g./cc.

50. A method for preparing an sweetener comprising the steps of:

providing 720 parts of soluble aspartame;

providing 1,000 parts of maltodextrin having 10 Dextrose Equivalent (DE);

providing 10,000 parts of dextrose;

mixing 10,000 parts of water with the aspartame, maltodextrine and dextrose; and

agglomerating the mixture.

51. The sweetener of claim 50 wherein the step of agglomerating uses a spray drier tower agglomerating system.

52. The sweetener of claim 50 wherein the bulk density of the sweetener is approximately 0.35 g/cc.

53. The sweetener of claim 50 wherein 0.5g of the sweetener contains 36mg of soluble aspartame.

54. The sweetener of claim 50 wherein the sweetener contains less than 2 calories.

55. The sweetener of claim 50 wherein the step of agglomerating further comprises injecting carbon dioxide prior to a drying nozzle.

56. The sweetener of claim 50 wherein the sweetener has a bulk density of 0.28g/cc.

57. The sweetener of claim 50 wherein the sweetener has uniform spherical particles.

58. The sweetener of claim 50 wherein the sweetener contains no bound crystals.

59. The sweetener of claim 36 wherein the high intensity sweetener comprises sucralose, saccharin, a dipeptide sweetener, acesulfame-K, cyclamate, stevioside or a combination of two or more thereof.

60. A tabletop sweetener comprising:

a sweetener including an agglomerate of an intense sweetener and a carrier such that the sweetener has a bulk density from 0.18 to 0.50 g./cc; and

a packet for containing said sweetener.

61. A sweetener comprising an agglomerate of an intense sweetener and a carrier such that the sweetener has a bulk density from 0.18 to 0.35 g./cc.

62. A sweetener comprising an agglomerate of an intense sweetener and a carrier such that the sweetener has a bulk density from 0.20 to 0.30 g./cc.

63. The tabletop sweetener of claim 60 wherein said packet is a conventional tabletop sweetener packet with dimensions of 1.5 inches by 2.5 inches.

64. The tabletop sweetener of claim 63 wherein said sweetener fills said packet to the same level while using a smaller amount of carrier and having the same amount of sweetness as a conventional sweetener having a bulk density of 0.66 g./cc.

65. The sweetener of claim 63 wherein when 0.5g of the agglomerated sweetener occupies substantially the same space as 1g of a conventional mixed sweetener product having a bulk density of 0.66 g./cc.

66. A method for preparing a tabletop sweetener comprising the steps of:

providing an intense sweetener;

agglomerating the intense sweetener with a carrier such that the sweetener has a bulk density from 0.18 g./cc. to 0.50 g./cc; and

placing the agglomeration in a packet.

67. A method for preparing a tabletop sweetener comprising the steps of:

providing an intense sweetener;

agglomerating the intense sweetener with a carrier such that the sweetener has a bulk density from 0.18 g./cc. to 0.35 g./cc; and

placing the agglomeration in a packet.

68. A method for preparing a tabletop sweetener comprising the steps of:

providing an intense sweetener;

agglomerating the intense sweetener with a carrier such that the sweetener has a bulk density from 0.20 g./cc. to 0.30 g./cc; and

placing the agglomeration in a packet.

69. The method of claim 66 wherein said packet is a conventional tabletop sweetener packet with dimensions of 1.5 inches by 2.5 inches.

70. The method of claim 69 wherein the step of placing the agglomeration in a packet comprises filling the packet to a recognizable level while using a smaller amount of carrier and

having the same amount of sweetness as a conventional sweetener having a bulk density of 0.66 g./cc.

71. The method of claim 66 wherein 0.5g of the agglomeration placed in the packet fills the packet to substantially the same volume as 1g of a conventional mixed sweetener product having a bulk density of 0.66 g./cc.

72. A method for preparing a tabletop sweetener comprising the steps of:
providing 35 parts of soluble aspartame;
providing 40 parts of maltodextrin having 10 Dextrose Equivalent (DE);
providing 925 parts of dextrose;
agglomerating the aspartame, maltodextrin and dextrose; and
placing the agglomeration in a packet.

73. The sweetener of claim 72 wherein the bulk density is approximately 0.50 g/cc.

74. The sweetener of claim 72 wherein the residual moisture content of the sweetener is between 5% and 7%.